- 1. A polypeptide construct comprising:
- a first portion comprising the second constant domain (C_{H2}) and/or third constant domain (C_{H3}) of an antibody heavy chain, and
- a second portion comprising at least two TGF- β superfamily receptor ectodomains (T β SR-ED) linked in tandem.
- wherein the N-terminus of the second portion is linked to the C-terminus of the first portion.
- 2. A polypeptide construct comprising:
- a first portion comprising the second constant domain (CH2) and/or third constant domain (CH3) of an antibody heavy chain, and
- a second portion comprising at least one TGF- β superfamily receptor ectodomains (T β SR-ED),
- wherein the N-terminus of the second portion is linked to the C-terminus of the first portion,
- and further wherein the first portion does not further comprise an antibody that binds to an antigen that is PD-L1, EGFR1, Her-2, CD4, CD6, CD20, CD25, MUC-1, IL-2, IL-6, or CTLA-4.
- 3. A polypeptide construct comprising:
- a first portion comprising the second constant domain (C_{H2}) and/or third constant domain (C_{H3}) of an antibody heavy chain, and
- a second portion comprising at least one TGF-β superfamily receptor ectodomain (TβSR-ED),
- wherein the N-terminus of the second portion is directly fused to the C-terminus of the first portion.
- 4. A polypeptide construct comprising
- a first portion comprising the second constant domain (C_{H2}) and/or third constant domain (C_{H3}) of an antibody heavy chain, and
- a second portion comprising at least one TGF- β superfamily receptor ectodomain (T β SR-ED),
- wherein the N-terminus of the second portion is linked to the C-terminus of the first portion, and wherein the polypeptide construct neutralizes TGF- β with at least 100-fold more potency than the T β SR-ED alone.
- 5. The polypeptide construct of claims 2-4, wherein the second portion comprises one T β SR-ED.
- **6**. The polypeptide construct of claim **5**, wherein the second portion comprises two T β SR-EDs.
- 7. The polypeptide construct according to claims 1-6, wherein the T β SR-ED is a TGF- β receptor type II ectodomain (T β R-II-ED).
- **8**. The polypeptide construct of claims **1-6**, wherein the $T\beta SR\text{-ED}$ comprises a sequence selected from the group consisting of SEQ ID NO:35, SEQ ID NO:69, SEQ ID NO:75, SEQ ID NO:81, and a sequence substantially identical thereto.
- 9. The polypeptide construct of claims 1-8, wherein the second portion comprises a sequence selected from the group consisting of SEQ ID NO:43-SEQ ID NO:51, SEQ ID NO:61-SEQ ID NO:68, SEQ ID NO:73, SEQ ID NO:74, SEQ ID NO:79, SEQ ID NO:80, SEQ ID NO:85, SEQ ID NO:86, SEQ ID NO:88, and a sequence substantially identical thereto.
- 10. The polypeptide construct of any one of claims 1-8, wherein the first portion further comprises a C_{H1} , a C_{H1} and V_{H2} , or C_{H1} and scFv.
- 11. The polypeptide construct of any one of claims 1-10, wherein the antibody heavy chain is of human origin.

- 12. The polypeptide construct of any one of claims 1-11, wherein the antibody heavy chain is selected from the group consisting of a human IgG1, IgG2, IgG3, or IgG4 heavy chain.
- 13. The polypeptide construct of any one of claims 1-12, wherein the antibody heavy chain is a human IgG1.
- **14**. The polypeptide construct of claim **4**, wherein the polypeptide construct shows longer in vivo half-life compared to the half-life of the second portion alone.
- **15**. The polypeptide construct of any one of claims **1-14**, wherein the polypeptide construct is a single chain polypeptide.
- **16**. The polypeptide construct of any one of claims **1-15**, wherein the polypeptide construct forms a dimeric polypeptide.
- 17. The polypeptide construct of claims 1-16, wherein the polypeptide construct is heterodimeric.
- **18**. A polypeptide construct selected from the group consisting of any one of SEQ ID NO:91 to SEQ ID NO:120, and a sequence substantially identical thereto.
- 19. A polypeptide construct according to claims 1-16, wherein the construct comprises an antibody, antigen binding fragment thereof, or a targeting moiety.
- **20**. A polypeptide construct according to claim **19**, comprising the antibody, antigen binding fragment, or targeting moiety at the N-terminus of the first portion.
- 21. A polypeptide construct according to claim 19, wherein the antigen binding fragment may be selected from the group consisting of a Fv, scFv, Fab, or sdAb.
- **22**. A polypeptide construct according to claim **19**, wherein the antigen binding fragment binds to an antigen that is not PD-L1, EGFR1, Her-2, CD4, CD6, CD20, CD25, MUC-1, IL-2, IL-6, or CTLA-4.
- 23. A polypeptide construct according to claim 19, wherein the antibody is selected from the group consisting of Cetuximab, Avastin, Herceptin, Synagis, and FC5.
- 24. A polypeptide construct according to claim 23, wherein the antibody is Cetuximab.
- **25**. A polypeptide construct according to claim **19**, wherein the targeting moiety comprises a poly-aspartate sequence motif for bone targeting.
- **26**. A polypeptide construct according to claim **25**, wherein the targeting moiety comprises D10.
- 27. A polypeptide construct according to any preceding claim wherein the construct is a dimeric polypeptide.
- **28**. A polypeptide construct according to claim **27**, wherein the dimeric polypeptide comprises:
 - a first single chain polypeptide comprising a first portion comprising the second constant domain (C_{H2}) and third constant domain (C_{H3}) of an antibody heavy chain, and a heavy chain variable region of a given antibody;
 - a second portion comprising one or more TGF- β superfamily receptor ectodomains (T β SR-ED),
 - wherein the N-terminus of the second portion is linked to the C-terminus of the first portion, and
 - a second single chain polypeptide comprising a first portion comprising the second constant domain (C_{H2}) and third constant domain (C_{H3}) of an antibody heavy chain, and a light chain variable region of said given antibody;
 - a second portion comprising one or more TGF-β superfamily receptor ectodomain (TβSR-ED) which is the same or different from the ectodomain(s) in the first